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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,975	09/06/2001	Roland Burkle	WEI0025	4324

7590

08/29/2003

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EXAMINER

SIMONE, CATHERINE A

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,975

Applicant(s)

BURKLE ET AL.

Examiner

Catherine Simone

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 6, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 14-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 25-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Withdrawn Rejections

1. The 35 U.S.C. 112 rejections of claims 1-13 and 25 of record in Paper #12, Paragraph #4, Pages 2-4 have been withdrawn due to the Applicant's amendment in Paper #14.
2. The 35 U.S.C. 102 rejection of claims 1-13 and 25 of record in Paper #12, Page 5, Paragraph #6 has been withdrawn due to the Applicant's amendment in Paper #14.

Claim Objections

3. Claim 39 is objected to because of the following informalities: "R_T> nm" in claim 39 seems to be missing a number before "nm". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-13 and 25-62** are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al. (6,261,649) in view of Verlinden et al. (WO 99/21707).

Regarding **claims 1, 5, 27, 28, 37, 41, 55, 56, and 61**, Takagi et al. discloses a glass/plastic composite film, in particular for use in electronic components and devices such as

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displays, made of a glass film having opposed side surfaces (see col. 34, lines 28-30) and a polymer layer applied on at least one of the side surfaces of the glass film (see col. 36, lines 7-9) with a thickness of between 1 μm to 200 μm (see col. 40, lines 62-67) with the polymer layer being applied directly to the at least one of the side surfaces (see col. 36, lines 7-9), and wherein at least one side of the composite film has an optical retardation that is not more than 20 nm (see col. 41, lines 17-21). However, Takagi et al. fails to disclose a thickness of between 10 μm and 500 μm for the glass film. Verlinden et al. teaches that it is old and well-known in the analogous art to have a glass film with a thickness of between 10 μm and 500 μm for the purpose of producing a glass/plastic composite film for a liquid crystal display.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have the glass film in Takagi et al. with a thickness of between 10 μm and 500 μm as suggested by Verlinden et al. in order to produce a glass/plastic composite film for a liquid crystal display.

Regarding **claims 6 and 42**, note the thickness of the polymer layer is 2 to 100 μm (see col. 40, lines 62-67). Regarding **claims 11 and 49**, the composite film is temperature-stable up to 130°C, and up to 140°C in the case of short-term heating (see col. 36, lines 47-50). Regarding **claims 12 and 52**, the polymer layer consists of a polycarbonate (see col. 10, lines 25-27). Regarding **claims 13 and 53**, note the glass film consists of borosilicate glass (see col. 9, line 52). Regarding **claim 25**, note the application of the glass/composite film is for the production liquid crystal display wherein the display is adapted for use in electronic components and optoelectronic devices (see col. 1, lines 4-10). Regarding **claims 26, 54 and 62**, note the thickness of the polymer layer is between 1 and 100 μm (see col. 40, lines 62-67). Regarding

claims 29 and 57, note the thickness of the polymer layer is between 2 and 50 μm (see col. 40, lines 62-67). Regarding **claims 36 and 60**, note the glass film consists of an alkali free borosilicate glass (see col. 9, line 52). Regarding **claims 34 and 50**, the composite film is temperature stable up to 180°C in the case of short term heating (see col. 36, lines 47-49). Regarding **claims 35 and 51**, the composite film is temperature stable up to 200°C in the case of short term heating (see col. 36, lines 47-49).

Regarding **claims 9 and 45**, both Takagi et al. and Verlinden et al. fail to disclose the transmission of the glass/composite film is more than 90% of the transmission of the glass film when the glass film is uncoated and the haziness caused by the polymer layer increases the haziness of the composite film by less than 1% in comparison to the glass film when the glass film is uncoated. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the transmission of the glass/composite film in Takagi et al. be more than 90% of the transmission of the glass film when the glass film is uncoated and the haziness caused by the polymer layer to increase the haziness of the composite film by less than 1% in comparison to the glass film when the glass film is uncoated, since it has been held that mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. *In re Wiseman*, 596 F.2d 1019, 201 USPQ 658 (CCPA 1979).

Regarding **claims 2-4, 8, 10, 30-33, 38-40, 46-48, 58 and 59**, both Takagi et al. and Verlinden et al. fail to teach specific ranges for a waviness and roughness of the surface of the composite film and specific ranges for a modulus of elasticity of the polymer layer as recited in claims 2-4, 8, 10, 30-33, 38-40, 46-48, 58 and 59. The optimum ranges for the waviness, roughness and modulus of elasticity would be readily determined through routine

experimentation by one having ordinary skill in the art depending on the desired end results.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the composite film in Takagi et al. with the specific ranges for roughness, waviness and modulus of elasticity as recited in claims 2-4, 8, 10, 30-33, 38-40, 46-48, 58 and 59, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art absence of showing unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Regarding **claims 7 and 43**, Takagi et al. fails to disclose the polymer layer covering at least one edge of the glass film. Normally, it is to be expected that a change in shape of the polymer layer would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dailey et al*, 149 USPQ 47 CCPA 1966. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape or form of the polymer layer in Takagi et al. so as to cover at least one edge of the glass film. One skilled in the art would have been motivated to do so in order to form a glass/plastic composite film, since it has been held that the change in form or shape of the polymer layer would be an unpatentable modification absence of showing unexpected results.

Response to Arguments

6. Applicant's arguments with respect to claims 1-13 and 25-62 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number (703)605-4297. The examiner can normally be reached on 9:30-6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Catherine Simone
Examiner
Art Unit 1772
8/13/2003



HAROLD PYON
SUPERVISORY PATENT EXAMINER


8/22/03